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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,597	09/11/2000	Steven P. Larky	0325.00418 CD117	4974

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EXAMINER

WEST, JEFFREY R

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,597

Applicant(s)

LARKY ET AL.

Examiner

Jeffrey R. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-3, 8- 11, and 13-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Catalyst Enterprises, Inc., "SBAE-10" Bus Analyzer-Exerciser User's Manual and Analyzer/Exerciser/Tester specification sheet (henceforth "Catalyst").

Catalyst discloses an apparatus coupled between a host computer, acting as a tester, and a USB device under test (User's Manual, page 6) wherein the apparatus is configured to allow the tester to perform tests of the device at higher or lower speeds, as needed, than that of the tester exclusively through the apparatus (Specification Sheet, page 1, columns 1 and 2 and User's Manual, pages 1 and 24). Catalyst discloses that the apparatus, interfaced with the USB device, can either emulate the host or the device (Specification Sheet, page 1, line 3). Catalyst discloses using the tester through the apparatus to control the transmission, reception (i.e. input and output), and verification of the USB device operation and using the apparatus to test these operations and indicating the results as a pass/fail signal with respect to the USB compliance specifications (Specification Sheet, page 1, column 1 and User's Manual, page 2). Catalyst also teaches a tester function to

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control the apparatus/host emulator to initiate test packets for a transmission/reception loop as well as verifying the packets or forcing packet errors to the USB device for correct operation verification (User's Manual, pages 39-40). Finally, Catalyst discloses that the apparatus is configured to perform one a plurality of test modes (User's Manual, pages 17-18) over a USB 1.x or 2.0 environment (Specification Sheet, page 1, lines 1-2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Catalyst in view of U.S. Patent No. 5,606,567 to Agrawal et al.

As noted above, the invention of Catalyst teaches all the features of the claimed invention except for including a test vector generator for generating test vectors.

Agrawal teaches a method for delay testing of high-performance digital components by a slow-speed tester wherein the automatic test equipment generates and applies a suitable test stimulus comprising one or more test vectors (column 7, lines 30-36) and compares a result of the vector testing to an expected correct

response and, if a mismatch occurs, the test system is configured accordingly to obtain the desired results (column 3, line 57 to column 4, line 2).

It would have been obvious to one having ordinary skill in the art to modify the invention of Catalyst to include a test vector generator for generating test vectors because while Catalyst describes a system wherein the speed of the device under test is automatically determined, Catalyst does not provide the corresponding method for performing this adjusted high-speed testing. Therefore, the combination of Catalyst and Agrawal, as suggested by Agrawal, would have provided a well-known method for obtaining signals required for performing the automatic adjusting for high speed testing of Catalyst (column 3, lines 50-64).

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,393,588 to Hsu et al. teaches a method for the testing of a USB hub comprising a host emulator apparatus coupled between a host computer and interfaced with a USB device under test (Figure 2) wherein the host computer acts as a tester that controls the testing of the USB device by transmitting

commands exclusively through the emulator apparatus (column 2, lines 49-55). Hsu also discloses that the emulation apparatus includes a number of sets of relay devices corresponding to each of the devices under test (column 2, line 66 to column 3, line 6) and uses the relay devices, if necessary, to transform the low speed signals from the host computer into high speed signals to allow testing of the high speed device (column 3, lines 45-47).

U.S. Patent No. 6,343,260 to Chew teaches a universal serial bus test system comprising a USB, a USB host controller coupled to the USB, and a set of USB interfaces which allow communication between a test application and a host controller driver, wherein the test application is configured to examine USB device descriptors and construct corresponding state information for the devices (column 3, lines 47-57). Chew also teaches connecting a plurality of peripheral devices to the USB port (column 4, lines 23-26) and that the testing apparatus (i.e. host device) initiates test data packets (column 5, line 67 to column 6, line 6), including a test application (column 6, lines 53-56), or a suite of tests, to be sent to the USB test device for reception and verification that the USB device can provide appropriate device information (column 7, lines 24-27).

U.S. Patent No. 5,177,630 to Goutzoulis et al. teaches a method and apparatus for generating and transferring high speed data for high speed testing applications.

U.S. Patent No. 6,324,663 to Chambers teaches a system and method to test internal PCI agents.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (703)308-1309. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

jrw
May 2, 2003


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800